

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding
Building Decarbonization.

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**COMMENTS ON ORDER INSTITUTING RULEMAKING REGARDING BUILDING
DECARBONIZATION**

BY THE COALITION FOR RENEWABLE NATURAL GAS

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I. Introduction

The Coalition for Renewable Natural Gas (RNG Coalition) is a California-based nonprofit organization representing and providing public policy advocacy and education for the Renewable Natural Gas (RNG or biogas-derived biomethane) industry in North America. The RNG Coalition's diverse membership is comprised of leading companies across the supply chain, including waste collection, recycling and waste management companies, renewable energy project developers, engineers, financiers, investors, organized labor, manufacturers, technology and service providers, gas and power marketers, gas and power transporters, transportation fleets, fueling stations, law firms, environmental advocates, research organizations, municipalities, universities and utilities.

Together, we advocate for the increased development, deployment and utilization of renewable natural gas so that present and future generations have access to domestic, renewable, clean fuel and energy for all sustainable end-use applications, including—but not limited to—the generation of electric power, thermal heat and ultra-low carbon transportation fuel.

The RNG Coalition respectfully submits these opening comments in response to the *Order Instituting Rulemaking Regarding Building Decarbonization* (OIR 19-01-011).

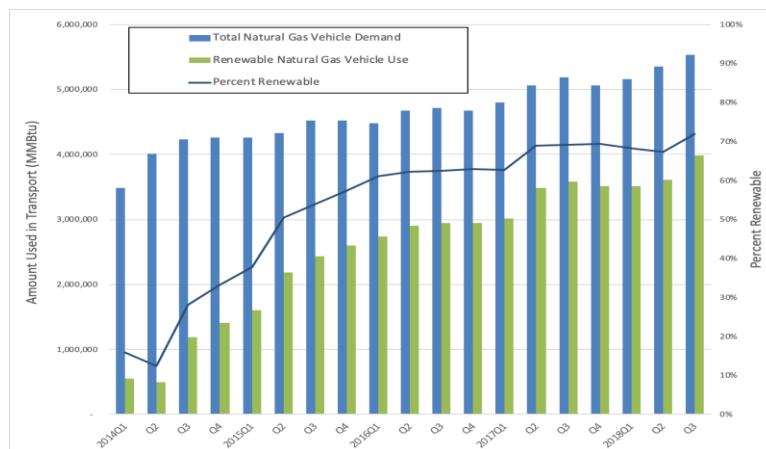
We have organized our comments below by first making the case that RNG has a significant role to play in decarbonizing buildings before responding to the specific questions outlined in the OIR.

II. RNG Contribution Potential for Building Decarbonization

1. RNG Has Demonstrated Success in Decarbonizing Transport Applications but is Saturating Existing Transport Demand in California

Federal and State policies have already created a strong driver for the use of RNG as an ultra-low carbon transportation fuel in California. As shown in Figure 1, according to the most recent quarterly data from the California Air Resources Board's (CARB) Low Carbon Fuel Standard Program (LCFS),¹ in 2017 RNG use in transport was about 13.8 Billion Cubic Feet (BCF). In the most recent quarterly data available (Q3 2018) RNG makes up 72% of all fuel used in natural gas vehicles (NGVs) and the rate of growth in RNG supply is outpacing the rate of growth in vehicle demand. This rapid shift away from conventional natural gas toward RNG in California's NGVs is, without a doubt, an impressive success story that has led to significant greenhouse gas (GHG) reduction.

Figure 1. Californian Natural Gas Vehicle Fuel Demand and Penetration of RNG



¹ LCFS data available from:

https://www.arb.ca.gov/fuels/lcfs/dashboard/quarterlysummary/quarterlysummary_013119.xlsx

Currently, there are 95 RNG production facilities in operation in North America. Developers, financiers and investors across the RNG industry stand ready to deploy significant capital to complete additional projects. We have twenty-two new RNG production facilities under construction in the United States, and an additional 40+ projects in development (32 in the US; 8 in Canada). Unfortunately, State policy support for the continued growth and deployment of NGVs that can be fueled by RNG has not kept pace with the growth trajectory of RNG supply. Further, California policymakers are sending mixed signals regarding the future of NGVs. For example, with the adoption of the Innovative Clean Transit Rule, it is now clear that the California Air Resources Board (CARB) believes that many local transit agency fleets should rapidly transition to vehicles using only zero emission technology.²

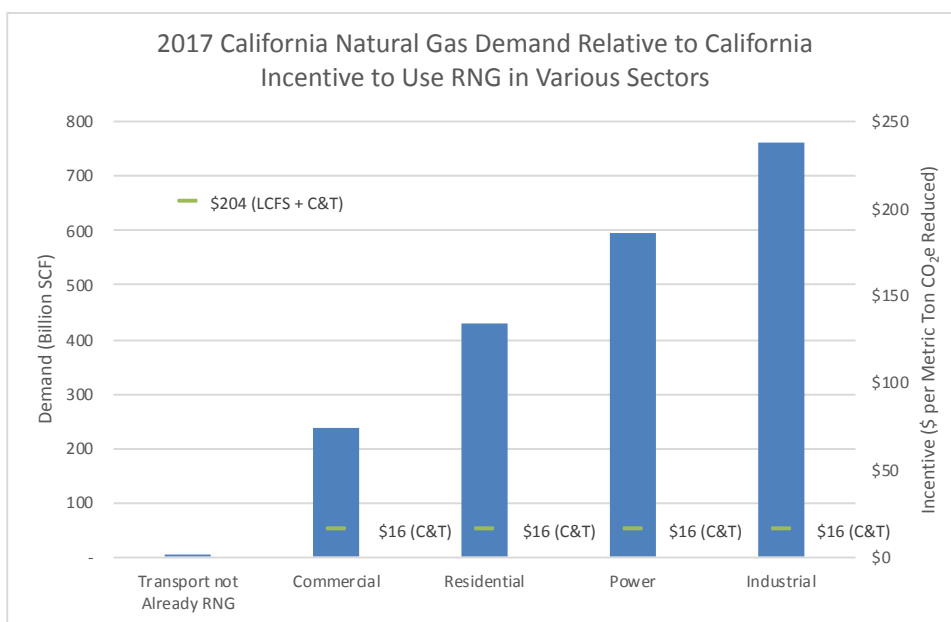
2. Non-Transport Sectors Represent Greater Potential RNG Demand, but Sufficient Policy Support is Lacking

As shown in Figure 2, the demand from NGVs not already fueled by RNG is very small compared to other existing natural gas applications. Still, the incentive to use RNG in transport provided by the LCFS is much larger than in other sectors, where the Cap-and-Trade Program is the primary tool that promotes broader RNG utilization. This reality sends conflicting signals to the RNG industry, and to project developers and investment community in particular. While we believe the greatest environmental benefits are realized when RNG is utilized in transport (due to the tailpipe emissions performance of NGVs relative to conventional diesel vehicles) the potential volumes of RNG expected to be developed in California could very likely exceed demand from

² <https://ww2.arb.ca.gov/rulemaking/2018/innovative-clean-transit-2018>

NGVs in the near future. Unfortunately, methane will continue to be produced from society's waste streams—including landfills, from diverted organic waste, at wastewater treatment plants and livestock and agricultural operations—whether or not there are sufficient NGVs on the road. Unless sufficient policy support is provided to incent or otherwise enable development of RNG production facilities for end-uses outside of transport, these volumes of methane will be combusted (flared and wasted), or worse, escape fugitively into the atmosphere as a short-lived climate pollutant many times more potent than carbon dioxide.

Figure 2. Remaining Californian Demand from Transport is Small Relative to Other Potential Uses of RNG, Yet Incentives to Use RNG in Transport are Much Larger than in Other Sectors³



³ The Power sector has other incentives to use RNG not shown in Figure 2, such as those created by the Renewable Portfolio Standard (RPS) and the Bioenergy Market Adjusting Tariff (BioMAT). Remaining transport demand in Figure 2 is extracted from the LCFS data. Demand data from other sectors from *EIA Natural Gas Consumption by End Use*, available from: https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_sca_m.htm.

LCFS prices available here: <https://www.arb.ca.gov/fuels/lcfs/credit/lrtweeklycreditreports.htm>

Cap-and-Trade prices here: https://arb.ca.gov/cc/capandtrade/auction/feb-2019/summary_results_report.pdf

3. Significant Additional RNG Supply is Available in the Near-term

The RNG industry has demonstrated under multiple programs—including RPS, the federal Renewable Fuels Standard, and the LCFS—the ability to develop and deploy supply in response to appropriate incentives. Likewise, with additional policy support to help decarbonize buildings, the RNG industry is poised to invest in, develop and deliver significant supply of RNG. For example, a 2017 review by ICF pointed to a range of studies in the literature finding the potential for RNG from California supply to be between 90.6-311.3 Billion Cubic Feet (BCF) per year and total potential supply from the US to be between 932-9,230 BCF/year.⁴

Southern California Gas Company (SoCalGas) has recognized the near-term availability of the RNG resource, including from both in- and out-of-state resources, and has announced their intention to implement a broad renewable natural gas procurement program, with a goal of replacing five percent of their natural gas supply with RNG by 2022 and twenty percent by 2030.⁵

4. This Proceeding Should Allow RNG the Opportunity to Quickly Help Decarbonize Buildings

This Proceeding on building decarbonization is a critical opportunity to discuss how to further deploy RNG as a resource to achieve cost-effective GHG reductions today. Studies that rely heavily on electrification for decarbonization of the building space often predict that a significant amount of RNG is used as a complementary technology. For

⁴ <https://www.icf.com/resources/white-papers/2017/design-principles-for-renewable-gas>

⁵ <https://www.sempra.com/socalgas-announces-vision-be-cleanest-natural-gas-utility-north-america>

example, in the work done by the consulting firm Energy and Environmental Economics (E3) for the California Energy Commission (CEC), the High Electrification Scenario (CEC 2050 case) has 0.46 exajoules (~436 BCF) of RNG use by 2050, representing 65.7% of the 2050 gaseous fuel supply in that scenario.⁶

5. Investment in Infrastructure to Supply RNG Need not Conflict with Programs to Promote Building Efficiency or Electrification

The RNG industry does not claim to be able to solve the daunting challenge of completely decarbonizing all existing natural gas infrastructure across all end-use applications alone. RNG, by virtue of the fact that it can be stored over long time periods and dispatched, makes it a complementary and necessary resource, especially when paired with other forms of renewable power derived from intermittent resources. A truly diverse energy portfolio of decarbonization technologies should include and take advantage of the environmental and economic benefits associated with increased utilization of RNG.

We believe that decarbonizing the heating loads in buildings is a worthy end-use of RNG today. Further, additional near-term volumes of RNG supply is available—especially if sizeable transport demand does not materialize and the industrial sector is unwilling to embrace RNG in the short run due to competitiveness concerns.⁷

⁶ *Deep Decarbonization in a High Renewables Future: Updated Results from the California PATHWAYS Model.*

https://www.ethree.com/wp-content/uploads/2018/06/Deep_Decarbonization_in_a_High_Renewables_Future_CEC-500-2018-012-1.pdf

⁷ The E3 study allocates RNG primarily to the industrial sector, but there is no reason to think that a shift toward that sector (or transport) could not occur in later years once an active RNG market is developed through significant use in the building sector.

Additional cross-agency study to determine the best long-run use of the RNG resource, while valuable, should not delay action on programs and incentives to capture methane and convert it for productive end-use today. Capture and conversion of methane from society's waste streams and redeeming it for productive end-use epitomizes sustainability. If RNG is pipeline-injected it will have the added benefit of incrementally decarbonizing existing pipeline infrastructure, and can be diverted toward other end-uses in the future if deep levels of building electrification are successful.

In summary, while RNG has achieved tremendous progress in decarbonizing the transportation sector, RNG for building decarbonization remains underdeveloped and in need of additional policy support if we are going to reach the State's greenhouse gas reduction targets. Expanding support for RNG in the building sector will create additional investment certainty for project developers working hard to provide a flexible, low carbon fuel and renewable energy source today. Relative to other options to fully decarbonize the building sector in the near term, we believe RNG will prove to be a cost-effective and complementary source of greenhouse gas reduction—but additional policy support, including by the CPUC, is needed.

III. Comments on Specific Questions outlined in the OIR

6. We Agree with Organization of the Proceeding into the Four Proposed Categories, but the Overarching Policy Framework Should Receive Highest Priority

We understand the desire to divide the Proceeding into the four categories identified in the OIR (Implementing SB 1477, Potential Pilot Programs for Decarbonization of New Construction in Areas Damaged by Wildfires, Coordinating with Title 24 Building Standards and Title 20 Appliance Standards, and Building Decarbonization Policy

Development). However, we recommend that developing the overarching policy framework for building decarbonization receive the highest priority, as the other topics should be subsets of this high-level discussion.

We applaud the Commission for identifying, as a first principle, the goal of approaching building decarbonization in a technology-neutral way. If RNG and other viable technologies are provided a level playing field on which to participate and compete, the overarching program will minimize consumer costs and ensure the most optimal path toward the State's greenhouse gas reduction goals.

California has established other successful policies that create competition across a variety of greenhouse gas reduction options. For example, the LCFS is a fuel-neutral, market-based program that reduces the lifecycle greenhouse gas emissions of transportation fuels. The program has eight years of proven success and many of the same concepts could be used to create a similar policy to promote cleaner options in building heating.

7. How should the Commission go about determining the administrative structure for the SB 1477 BUILD and TECH programs, from among the options listed in the statute?

We have no comments on this issue at this time except to note that similar questions should be considered for the RNG procurement standard authorized by SB 1440 (Hueso, 2018).

8. If the Commission chooses a third-party administrator, what process should it use to select the administrator?

We have no comments on this issue at this time.

9. How should the Commission establish the budget for each program? What portion of the budget should be reserved for program evaluation? How should the program evaluator be selected?

We have no comments on this issue at this time.

10. What program design parameters should be established by the Commission independent of the program administrator, and which aspects should it allow the selected program administrator to develop on behalf of the Commission?

We have no comments on this issue at this time.

11. Should the Commission consider proposals for new rate designs as part of the design and implementation of the BUILD and TECH programs?

We have no comments on this issue at this time.

12. What goals should the Commission set for building decarbonization?

The Commission, as a first priority of this Proceeding, and in consultation with CARB and the CEC, should set an overarching metric (or metrics) for either annual carbon intensity reductions for the building sector as a whole or for various key end-uses in buildings (e.g., space heating, hot water, etc.). Such metrics must properly capture the interaction effects between actions that decrease the carbon intensity of the energy supplied (i.e., through the increased use of renewable power or gas) and those that improve the efficiency of the end use (i.e., require less energy to be used).

With respect to incentive types and levels, we recognize there may be a perceived need to depart from technology neutrality and provide higher incentives to promote cost-declines in certain nascent technologies. We believe this should be limited to specific priorities identified in statute. For example, in addition to the direction on the TECH Initiative established by SB 1477, the Commission has legislative direction to consider adopting specific biomethane procurement targets or goals for each gas corporation.⁸ Outside of any enhanced incentives for this legislatively-prescribed subset of actions we

⁸ SB 1440, Hueso, 2018

encourage a bold technology-neutral framework, ideally using declining carbon intensity standards evaluated on a lifecycle basis.

13. What other specific initiatives should the Commission examine to further the goals outlined in the question above?

The commission should examine if an LCFS-like analog for the building sector could be developed, in line with the overarching goal/decarbonization metric described above. If such an overarching program is established, the Commission should carefully examine how specific subprograms, such as those authorized by SB 1477 and SB 1440, interact with other policies established to reach the overarching goal. If an overarching policy is not considered, at a minimum the interaction effects between these policies should be clearly evaluated and transparently presented to parties.

III. Conclusion

The issues discussed in this Proceeding are critically important to continued growth in the RNG industry. Our member companies are investing in new facilities to deploy increased volumes of RNG and reduce methane emissions. We hope for clear signals that this is supported by the Commission and other California decisionmakers. A well-designed policy framework that promotes the use of RNG to help decarbonize buildings will continue the success laid by transportation policies and ensure that the State achieves its climate change goals and renewable energy objectives.

Thank you for your consideration of these comments.

R.19-01-011

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Respectfully signed and submitted,

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